

Notes 9/30 - Using Radicals to Solve Eqs

- Use radicals to undo exponents

Ex: $\sqrt{x^2} = \sqrt{25}$

$$x = 5, -5$$
$$x = \pm 5$$

check:

$$5^2 = 25$$

$$(-5)^2 = 25$$

Ex 2: $\sqrt[3]{x^3} = \sqrt[3]{64}$

$$= 64^{\frac{1}{3}}$$

$$x = 4$$

on calc: Math 4: $\sqrt[3]{}$
or $64 \wedge (1/3)$

check:

$$4^3 = 64$$

~~$$(-4)^3 = 64$$~~

Ex 3:

~~$$\frac{x^4}{4} = \frac{1250}{2}$$~~

on calc:

4 Math 5: $x\sqrt{}$

$$\sqrt[4]{x^4} = \sqrt[4]{625}$$
$$= 625^{\frac{1}{4}}$$

$$x = \pm 5$$

* For all even powers, need \pm